AMENDMENT AND RESPONSE UNDER 37 CFR § 1.111

Serial Number: 09/782,743
Filing Date: February 13, 2001
Title: DUAL DOPED GATES

5. (Original) A method comprising:

preparing a substrate;

forming a first gate structure including a PWELL without using a mask; and forming a second gate structure including an NWELL using only one mask.

6. (Original) The method of claim 5, wherein forming a second gate structure including an NWELL using only one mask comprises:

forming a deep NWELL.

7. - 8. (Previously Withdrawn)

9. (Original) A method comprising:

preparing a substrate;

forming a first gate structure including a PWELL having a depth of about 200 nanometers without using a mask; and

forming a second gate structure including an NWELL using only one mask.

10. (Original) The method of claim 9, wherein forming a second gate structure including an NWELL using only one mask comprises:

forming a deep NWELL.

11. - 16. (Previously Withdrawn)

17. (Original) A method comprising:

preparing a substrate;

forming a first gate structure including only blanket implants; and

forming a second gate structure including an NWELL using only one mask.

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18. (Original) The method of claim 17, wherein forming a second gate structure including an NWELL using only one mask comprises:

forming an NWELL having a depth of about 200 nanometers.

19. - 35. (Previously Withdrawn)

36. (Currently Amended) A method of forming one or more dual gate structures, the method comprising:

forming one or more gate structures including a PWELL without a mask; masking one or more [NWELL] <u>PWELL</u> regions; and

forming one or more gate structures including an NWELL in at least one of the one or more NWELL regions.

38. (Amended) A method of forming one or more dual gate structures, the method comprising:

forming one or more gate structures including a PWELL using blanket implants; masking one or more [NWELL] <u>PWELL</u> regions; and

forming one or more gate structures including an NWELL in at least one of the one or more NWELL regions.

- 45. (Previously Added) The method of claim 1, preparing the substrate comprises forming a PWELL in an *n*-type substrate.
- 46. (Previously Added) The method of claim 1, wherein forming one or more dual gate structures in the substrate using only one mask comprises forming one or more complementary metal-oxide semiconductor dual gate structures in the substrate using only one mask.
- 47. (Previously Added) The method of claim 2, wherein forming the sacrificial oxide layer on the semiconductor comprises growing a sacrificial oxide layer to a depth of a few microns.

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- 48. (Previously Added) The method of claim 3, wherein forming the gate oxide layer on the semiconductor comprises forming the gate oxide layer having a thickness of between about five nanometers and about ten nanometers.
- 49. (Previously Added) The method of claim 5, wherein preparing the substrate comprises forming a PWELL in an n-type substrate.
- 50. (Previously Added) The method of claim 5, wherein forming the first gate structure including the PWELL without using the mask comprises forming the PWELL by a blanket implant of boron ions at about 430 keV.
- 51. (Previously Added) The method of claim 5, wherein forming the first gate structure including the PWELL without using the masking comprises forming the PWELL having a depth of about 200 nanometers.
- 52. (Previously Added) The method of claim 5, wherein forming the first gate structure including the PWELL without using the masking comprises forming the PWELL having a blanket implant of boron ions at about 430 keV and a depth of about 200 nanometers.
- 53. (Previously Added) The method of claim 49, wherein forming the first gate structure including the PWELL without using the mask comprises forming the PWELL by a blanket implant of boron ions at about 430 keV.
- 54. (Previously Added) The method of claim 49, wherein forming the first gate structure including the PWELL without using the masking comprises forming the PWELL having a depth of about 200 nanometers.
- 55. (Previously Added) The method of claim 9, wherein preparing the substrate comprises forming a PWELL in an n-type substrate.